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Wm. Howard

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Inaugural Essay
on ulceration of the Intestines

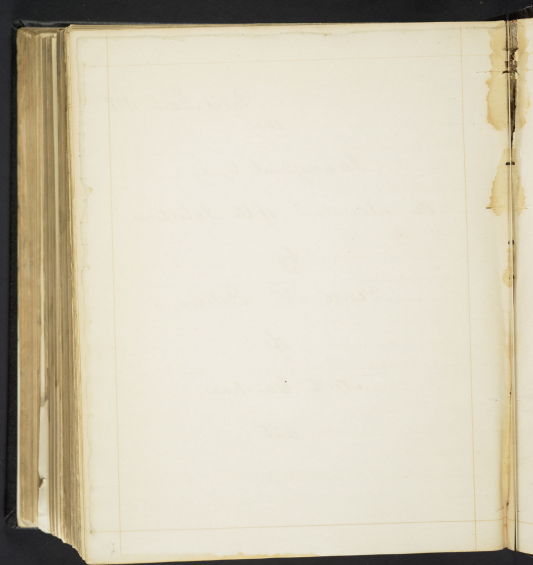
by

George L. Bennett,

of

North Carolina.

1828.



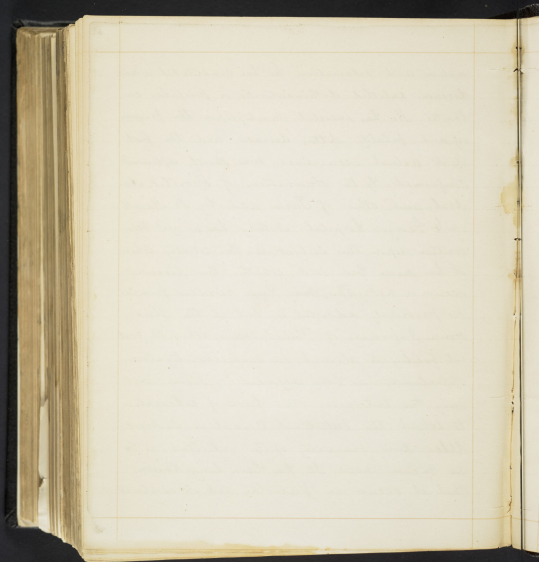
Auspicious as the times may be to the advancement of the Medical profession in this Country, still it must be acknowledged, that there are difficulties, yet placed in the way of its success. The pathological investigations which have recently, been conducted, with such spirit, and which have conferred such benefit, upon Medical Science, have mostly been confined, to another quarter, and we have been contented, to receive and acknowledge the discoveries and Observations of others. That very valuable Contributions, however, have been made to the profession in this Country, it would be injustice to deny. But few and limited, are the facilities, allowed for Autopsical investigations, by the light of which Obscurity, may in a great measure, be removed from the practice of medicine, and the fallacy of incorrect, theoretical opinions be detected. The general prejudices of Society, and that delicacy which is natural, and almost invincible, to every one, in

regard to the pursuits of morbid anatomy, has obstructed the progress of pathological discovery in this Country, where an ample Theatre, has been afforded, not only for the variety of disease, but the same diseases, modified by diversity of Situation and Climate.

The Stomach, having been long, looked upon as the principal organ, that is liable to suffer, by the ravages of fever and a variety of other diseases; it has been but lately, that investigations, more ample and extended, have illustrated, the importance of attending to the whole alimentary Canal, as equally deserving of notice.

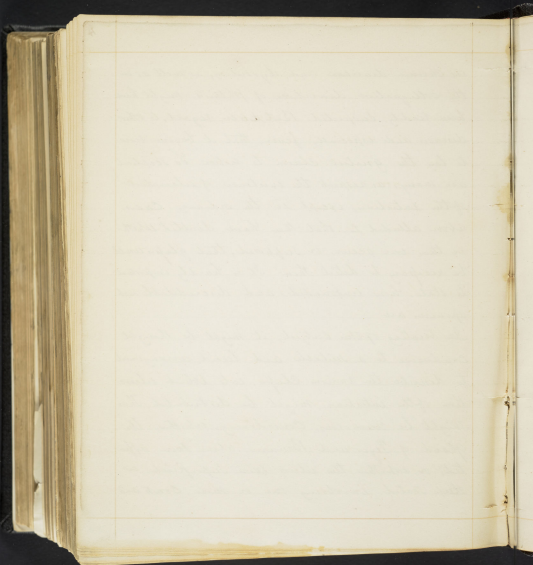
The truth of this proposition, has recently been set in a most interesting light, by the investigations of M. Broussais, a distinguished Physician of Paris. Having observed that the small glands of Peyer and Brunner, which are scattered, respectively along the course of the small and large intestines, are often liable to inflame.

motion and ulcerations, he has constituted a new
 disease, entitled dothine enteritis, or pustular en-
 teritis. He has insisted much, upon the frequen-
 cy and fatality of this disease, and the fact
 of its actual occurrence, was shortly afterwards
 confirmed, by the observations of Troillet, An-
 dral, and others of Paris, and by Dr Hewitt
 of St George's hospital. Nothing has, as yet been
 written upon this subject, in this country, where
 it has never been said, whether this disease
 occurs or not. This may have resulted from cau-
 sis previously adverted to; but in the Alms
 House Infirmary of Philadelphia, where the great-
 est facility is allowed for such investigations,
 opportunity has been afforded, of seeing, not
 only this, but every other form of ulceration
 to which the intestinal canal is subject.
 Ulceration generally of the intestines, is by
 no means new. It has been long known
 that it occurs in Variola, and its existence

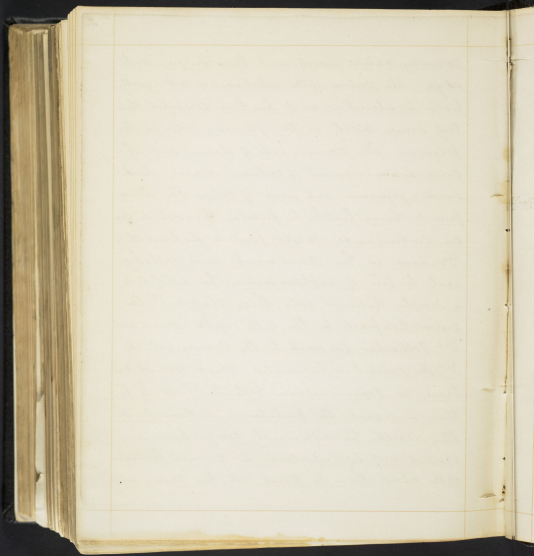


in Chronic diarrhoea and dysentery, as well as in the colliquative diarrhoea of Phthisis, might have been readily suspected. But, it is in regard, to other diseases and especially, fever, that it begins now to lay the greatest claim to notice. So sceptical are many, as respects the existence of ulcerations of the intestines, except in the ordinary cases, above alluded to, that they have doubted whether or they ever occur, or supposed, that glassen would be necessary to detect them. It is hardly important to state, how unfounded, and discreditable such opinions are.

In treating of this subject, it might be thought conducive to a suitable and lucid arrangement to describe the various Claps, into which ulceration of the intestines, might be distributed. There might be numerous, considering, whether, the Glands of Peyer and Brunner, alone were affected; or whether the ulcer were superficial or deep seated, involving one or more coats and



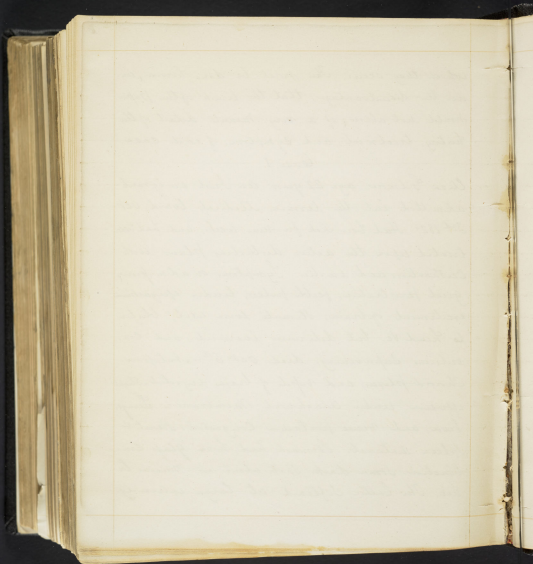
presenting various aspects, as to their surface and edges. All portions of the intestines, are not equally liable to ulceration, as it has been computed that they occur, mostly, in the following order as to frequency. The Cecum - end of ileum; end of colon; commencement of rectum; Stomach; duodenum; jejunum; and arch of colon. The rectum from its being liable to fistulas, hemorrhoids, cancer, Contractions &c. might form a distinct class. Gendrin in his Anatomical, and pathological history of inflammation, has adopted a simple division into three classes. 1st the villous, Confined to the Villi of the Mucous coat. 2^d Follicular, Confined to the Mucous follicles. 3^d The patched or laminated, which would embrace in some instances, both the first. If to these is added, the pustular, or dothinententeritis they would be sufficiently comprehensive. But it is of less importance to describe the classes of the ulcers, than to point out the cases, in



which they occur. This must be done however, under the disadvantage, that the limits of this paper would not allow, of a very minute detail of the history, treatment, and symptoms, of each case.

Case I.

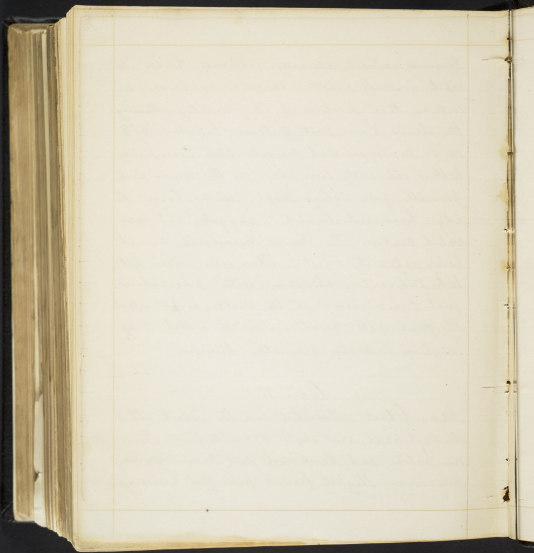
Eliza Gilman, age 22 years, an Irish emigrant admitted into the Women Medical Ward, Oct: 3rd 1827. Had been sick for nine weeks, and had been treated upon the active disturbing plan, with Cathartics, and emetics. Symptoms on admission, great prostration, feeble pulse, tender epigastrium, excitement of brain, Stimuli were used, blisters to Head &c. but delirium increased, and convulsions supervening, died Oct: 6th Autopsied. Choroid plexus, and Ventr. of brain injected. Slight effusion under Arachnoid Membrane - Lungs, Liver, and Vena portarum Congested. Heart & Spleen natural. Stomach had some glaucous contraction. Some dark spots about its mucous lining. The latter softened at large extremity.



Jejunum injected externally, internally healthy. The whole of Small intestine injected externally, as well as that portion of the Mesentery attaching the ileum. Lower part of ileum, had dark spots on its peritoneal and muscular coats. Corresponding to those internally, were ulcers in the mucous coat, generally of an oblong shape; some very large; the edges hard and elevated; ragged, and excavated centres. The mucous membrane around being intensely injected. There were some pallid, tuberculous elevations, with ulcerations just commencing in the centre, as ~~at~~ a point. The glands of the mesentery, some in a state of sup-
puration and all generally diseased

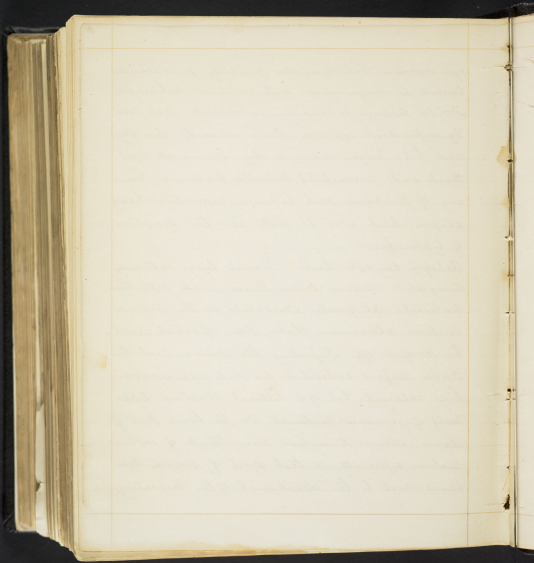
Case II.

James Clark, admitted into the Blackwell Medical ward, about Nov^r 1st 1827. with fever - Previous history and treatment not known. On admission; tongue slightly furred; pulse good; loarscape;

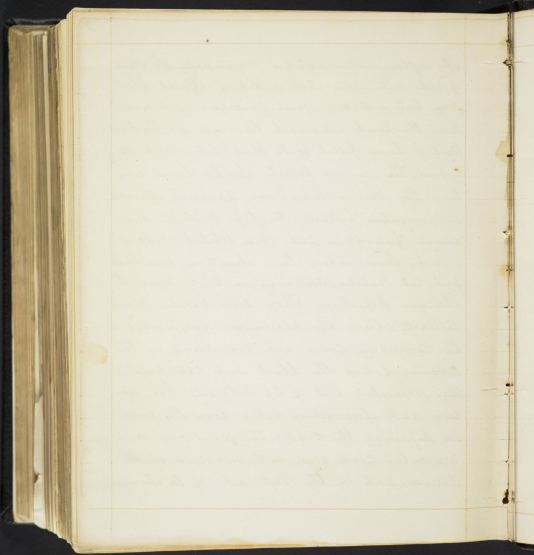


eyes injected, but symptoms generally favorable, was
 leeches to epigastrium; and restricted to light diet.
 Nov. 16. Appeared entirely convalescent. Took cold
 by imprudent exposure. Fever returned. Skin dry
 and hot; Tongue red and dry, became at last,
 dark and encrusted; Subcutis tendinous; Heav-
 ing of shoulders, and laborious respiration; Heavy
 stupor: died Nov. 21. with all the symptoms
 of typhus fever.

Autopsia day after death. Stomach, large extremity
 congested, Mucous tunica thin, and softer than
 natural, at greater curvature on the anterior
 surface, albuminous flakes, some of which could
 be scraped off. Dispeeling the mucous coat, the
 under surface exhibited no such appearance.
 Liver enlarged, but of a natural structure. Upper
 half of jejunum natural, On the lower part of
 ileum, almost throughout, were streaks of inflam-
 mation, especially on that part of mucous mem-
 brane, next to the attachment of the Mesentery.



The inflammation existed principally in Strata of red, with some spots or dots, of effused blood. Some but not very great vascular injection, and some thickened elliptical laminae in the lower part of ileum, filled with black dots which occupied the mucous follicles. In the large intestine, the Mucous Membrane, appeared elevated in irregular hillocks; the tops of which were rough, fungiform, and of a whitish yellow aspect. Surrounding these elevations, were black and red patches running in circuitous and oblique directions. There were besides, many distinct ulcers. The ulceration diminished in the ascending colon, and was absent in the caecum, where the black and red patches, also prevailed, but of less intensity. The rectum and descending colon, were the worst. On dissecting the coats, the peritoneal and muscular coats, were not involved in the disease, and in the intervals of the elevations



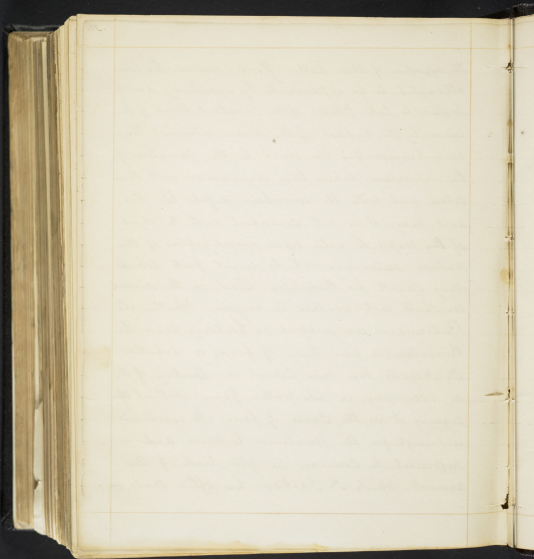
and ulcer alluded to. the Mucous Membrane was healthy in colour and texture.

Remarks. These two Cases exhibit evidently the Character of *Atthineulenteria*, as described by M. Broussais, and by Dr Hewitt. The ulceration commencing in the gland; the inflamed areolae surrounding them; the gland in some instances destroyed; and the ulcerations advancing in the Mucous Membrane, the intervals between, being healthy in its appearance.

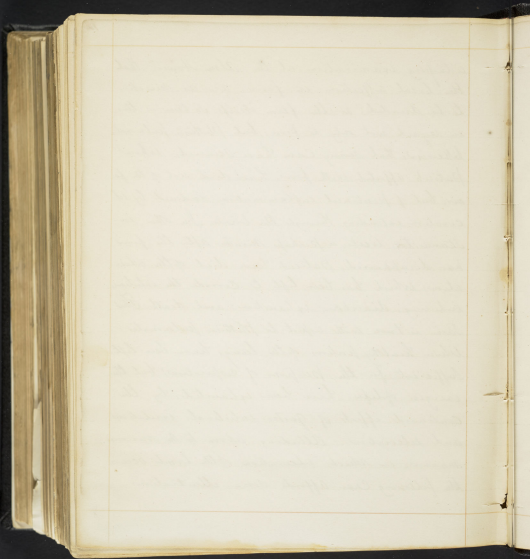
The whole of this dissection, was recorded without the knowledge of the Observations of those Gentlemen at the time. But it is not the glands only, that may prove the seat of ulceration, in Cases similar to those described above.

In the fatal terminations of fevers, ulceration especially of the Small intestines, and the ileo-coecal valve, have been noticed at the almshouse; where the glands, particularly, the Mesenteric, have not been, at all affected.

The affection of these latter glands, indeed, has been attempted to be explained, by supposing an absorption to take place, of the purulent fluid of the ulcer, by the radicals of the Venae portarum; these veins transporting the fluid to the ganglions of the Mesentery, where they anastomose with those of the liver, and with the absorbent vessels. Be this as it may, it is not consistent with the object of this paper, to enter upon investigations of this nature: intending only to record facts which may speak for themselves. And on this account we shall not venture to inquire, whether all Broussais was justified in building upon Routhineury, a new theory of fever; or whether Dr Hewitt, was more correct in speaking of it, as occurring in idiopathic fever; without assigning it, as the cause of fever. Its existence is enough for the practitioner to know, and is sufficient to convince us of the truth of the remark, which Dr Jackson, has often made in



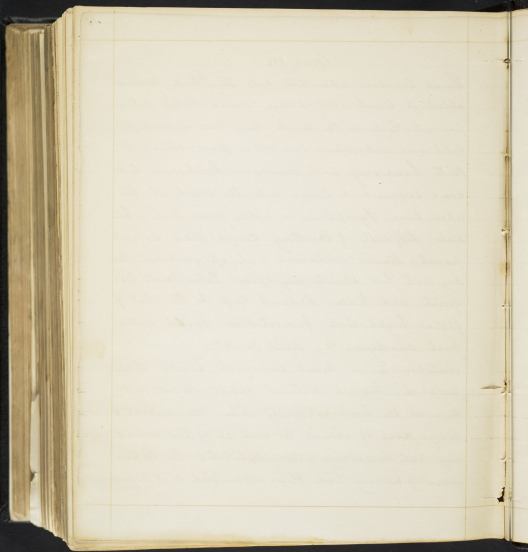
visiting examinations, at the Alm House, that
 the local affection in fever, are as much,
 to be dreaded, as the fever itself. So true is this
 in regard not only to fever, but Phthisis pulmonalis,
 likewise, that many Cases have occurred, where
 Patients affected with fever, have died not of the fe-
 ver, but of peritoneal inflammation, induced by ul-
 ceration extending through the bowels. In other in-
 stances, too, weeks, or perhaps months after the fever
 has disappeared, Patients have died of the ulcer-
 ation, which has been left to corrode the intestines,
 inducing, diarrhoea, exhaustion; and death. This
 same is true with respect to Phthisis pulmonalis,
 when healthy portions of the lung, have been left,
 sufficient for the purpose of respiration; but the
 energies of life, have been exhausted, by the
 continued effects of gastro-intestinal, irritation
 and ulceration. Alluding above to the various
 manners, in which, ulceration of the bowels occurs,
 the following Case affords some illustration.



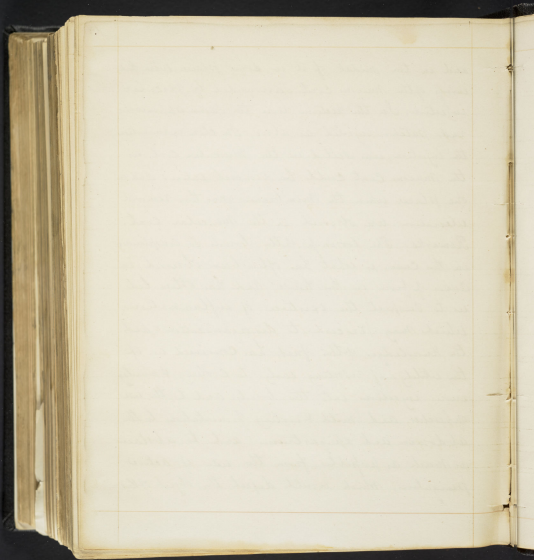
Case III.

Sarah Warden, admitted into the Black Women
 Medical Ward. Nov. 13. age 22 years. Habits intem-
 perate. Early in the month, had been exposed to
 cold and wet, which brought on fever, attended
 with hoarseness and anorexia. Continued to be-
 come worse, and came into the ward at the
 above time. Symptoms on admission, Violent head
 ache; difficulty of breathing; Cough; Pain around
 navel; tender abdomen and epigastrium; Skin
 dry and hot. Bowels very open; Pulse small fre-
 quent, and tense. Ordered Cups to the seat of
 Pain; light diet; fomentations; mild astin-
 gent anodyne &c. died on 16th.

Autopsia. Liver much enlarged, Harder than
 natural. Stomach natural, except slight injur-
 tion at the lower extremity. The mucous coat of
 lower half of ileum, as well as of the ascend-
 ing and descending Colon, exhibited the appear-
 ance of having had flour sprinkled on its surface.



and in the midst of it in some places, were thick
 coatings of the Mucous Coat, surrounded by vascular
 injection. In the rectum were the same appearances,
 and patches injected as above. On close examination
 the injection, was seated in the Muscular Coat, as
 the Mucous Coat could be removed entire: and in
 one place, when the Membrane was thus removed
 ulceration was observed in the Muscular Coat.
 Remarks... The looseness of the bowels so conspicuous
 in this case, is what has often been observed, in
 cases of fever in this house; and has often led
 us to suspect the existence of inflammation
 which may proceed to disorganization; and
 the knowledge of this fact, has convinced us, of
 the utility, of resorting early, to cooling & mucilag.
 enemata, injections into the bowels, and to the use
 of leeches, and mild & cooling formulations to the
 abdomen and epigastrium; and to abstain
 as much as possible, from the use of active
 purgatives, which would defeat the object of this



treatment. As to ulceration existing in the muscular coats, it is not probable, that it often occurs, and if in any extent, would soon embrace the cellular and mucous membranes. But it is possible for disorganization to commence its career in any of the coats of the intestine. There died a few weeks ago, a man of middle age, in the Allen Clinical Medical Ward, whose case it is unnecessary to detail at full length. He was admitted into the Allen House, from the Pennsylvania Hospital, where he had been the subject of intermittent fever. The result of this was effusion; and he died shortly after his admission into this house, having been treated ineffectually with diuretics &c. On examination, ulceration of the bowels was discovered accompanied with peritoneal inflammation. The Omentum was thickened, and indurated, and the intestinal glands together by coagulable lymph which had been thrown out: and scattered thickly

over the peritoneal surface of the intestines, tubercles
 were observed, many of which were in a state of sep-
 aration. There, had in many instances, extended in
 wards so far, as to leave the mucous membrane entire
 although it exhibited along its back, marks of chro-
 nic irritation and inflammation. It would be very
 were it essential, to detail other cases, similar to the
 last mentioned, in which persons attacked, at first
 with fever, attended with diarrhoea, and resulting
 at last in effusion, were found after death, to
 have ulceration of the intestines, seated in the
 mucous coat; not large, jagged, and sharp-lipped,
 like those observed in typhus fever, but generally
 diminutive; a line or two in diameter, and
 circumscribed by well defined areolae of a
 red colour. The ulcer too, that may be so often
 observed in chronic diarrhoea and dysentery,
 and in the Colliquative diarrhoea of phthisis,
 as well as, in the case which Richter has denom-
 inated, rheumatism inverted upon the bowels,

although the edges, are often, jagged, blackish, and deep; they do not present the elevated appearance, like the Venereal sore, or chancre; as the ulcers previously described. In infants too, who have died, with all the ordinary symptoms of Hydrocephalus, such as rolling of the eyes; and of the head; teeping of the hands; convulsion, &c: ulceration of a peculiar Character, so far as I have had an opportunity of seeing, occurs, attacking the Mucous follicles, which have the appearance of black specks, enclosed in thickened, elliptical laminae of the Mucous Membrane: these ellipses, beginning in the large intestines, and diminishing in their transverse or long diameter, as they advanced to the small intestines: becoming more indistinct in their ascent, and scarcely visible in the duodenum. The same appearance has also been described in one of the Cases previously detailed, conjoined with ulceration, and destruction of the Mucous

membrane, no other kind of ulceration have I seen known, in the Hydrocephalus of Children: and its occurrence is sufficient to indicate the utility of considering the Primæ viæ, as the principal seat of that disease.

A case of some interest with regard to another disease, it may be worth while to detail more at length.

Case IV.

Lewis McGuire age 26 years, admitted into the above Clinical Ward. Sept. 26th 1827. Said he had been sick for some weeks. First with Anorexia, Nausea, and Head ache, After which his skin became jaundiced. Symptoms on admission - Skin of a bright yellow or golden colour, Conjunctivæ the same. Tongue white furled and cracked in every direction. Bowls Open: feels no pain. Ordered blue Mass and frictions of Strong Mercurial ointment - diet to be light 2y^r cups to eight Hypochondrium

29th no better. Skin of a deeper colour and dry, ordered Calomel and Opium in small quantities.
 Oct. 2nd Bore too much spent! Strength greatly reduced. Tongue dry and cracked! Voice weak and tremulous! ordered Castoreum, julep with Tine. Opium and enemata of flax seed Mucilage and Laudanum. 3rd Bore improved! but disposition to sink. Ordered blister to right Side P. M. sinking. Tongue the same, Mind wandering! ordered Stimuli, internally, and externally. 4th sinking gradually. 5th Morning: died on 7th Having ejected from his Stomach before death three fourths of a pint, of dark fluid resembling Coffee grounds.

Autopsia. Liver of natural Size, Bile natural, no obstruction of ducts, or apparent irritation or inflammation of them. Stomach slightly softened at large extremity, in one spot. But at anterior surface, the Mucous tunic, appeared rather thickened. No injection or redness of Stomach.

but it was more of a yellow tinge. Intestines of a dark colour, externally. On opening the large intestines, they exhibited a bluish appearance, and irregular dark red spots of apparently effused blood, in the Mucous Coat, with a kind of granular lymph: the Center of these dark spots being the seat of ulceration. This appearance existed especially towards the caecum.

Remarks. It will be seen from the treatment pursued in this case, that the Liver was suspected to be materially concerned as the seat of his disease; which it was not. The appearance presented, afford a strong illustration of the truth of that pathology of jaundice, as taught by the Professor of the Practice of Medicine in the University of Pennsylvania; ascribing it mainly to a derangement of the Chyliferous Viscera in which the Serum of the Capillaries undergoes a morbid change.

In addition to the Cases already cited, the Space

to which this paper must be confined, will allow of the detail of but one more: and that with respect to a disease whose title is indefinite and its pathology obscure; a disease which the powers of the art, are often, unavailingly invoked to relieve.

Case V.

Ellisgant Anderson, age 33 years, admitted into the Boston Clinical Medical Ward in the Spring of 1827. Had been a very plethoric and healthy Man. Sometime previously to admission, had been seized with fever. On admission, account of his case as follows. General emaciation of whole body; entire loss of appetite. Soreness of the Muscles of the extremities, so as not to bear the slightest touch. Has been treated with active purgatives and emetics, much to his disadvantage. Has had blister to breast for hoarseness, Hoarseness still exists, amounting, almost to aphonia. Ordered blisters to be repeated & anodyne expectorants

Speech in a few weeks returned, Soreness of extremities soon relieved. Genus diet allowed, and Anodyne at Night. April 25th. Pain at Stomach for which she was leech'd, and black drop & Anodyne Misture ordend. May 20th Some paroxysms of pain in bowels, with tormina, which nothing could relieve. Lingued until June, and died with all the Symptoms which characterize Marasmus or Tabes Mesenterica.

Autopsia. Liver, Kidneys, and uterus natural. Ovaries enlarged. Stomach entirely situated to the left of the Spine in left Hypochondrium. The greater extremity uppermost, and in Contact with the diaphragm. The lesser extremity lowermost, and in Contact with the left side of the Spine; the Duodenum lying perpendicularly, on the Spine. The rectum bore extensive Marks of ulceration of the Mucous Coat, most of which had healed, or cicatrized, and this Appearance continued through the whole of

the colon, but was much less in the caecum. In the rectum, and lower portion of ileum some observed some dark coloured tubercular thickenings, of the mucous coat, and elevated laminae of the same, red, and florid, with well defined edges. The rest of the mucous surface, had the appearance of having been ulcerated and cicatrized. The small intestines, especially, altered by chronic inflammation, and having a granular aspect, as if flour, had been dusted over this surface. The glands of the Mesentery some what enlarged.

Remarks. This case will illustrate the effect of ulceration of the intestines and the time it may continue, as well as, the recuperation efforts which the system, can make to relieve itself. It has been doubted, whether the mucous membrane, after being destroyed, by ulceration, could be healed, or regenerated. That it may be, is admitted, by Trillat, Andral, Hewitt and

Others, who have directed their attention to investigation of this nature. But a remark which is made by Howship, in his treatise on the Colon, may shed some light on this, as well as similar cases. I have observed the remarks, that the new surface, when the ulcer has healed, is neither capable of absorbing, nor bearing irritations so well as the original structure.

As it respects the diagnosis and treatment of ulceration of the intestine it was not intended to dwell upon them further, than what is stated in the record of the Cases quoted.

I have then endeavored to exhibit what was intended, the frequency of a disease which is not often suspected: illustrating the truth of that law of Pathology, that again, the most active, are most subject to disease. I do not suppose that, ulceration of the

infections, always exist, in diseases similar to those, in which I have said, they have occurred. On the contrary they do not. But it behoves the enlightened Physician to be apprised of the danger, with which he has to contend, in order that he may if possible, avoid them, by a vigilant and patient investigation into the nature and seats of disease.

Baffled as we must often be, in conclusion with regard to diseases within, drawn from signs without, it gives no reason to suppose, or believe, according to some, that little utility exists in investigating post mortem the causes of disease and death. On the contrary that being the surest method of determining a correct diagnosis and pathology, we should avidously appeal to it until greater certainty, and security are obtained, in forming those opinions by

which it is attempted to regulate the prac-
tice of Medicines.



M. O.
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